



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/510,099	10/05/2004	Yefim Riskin	P-7257-US	5091
49443	7590	05/04/2006	EXAMINER	
PEARL COHEN ZEDEK, LLP 1500 BROADWAY 12TH FLOOR NEW YORK, NY 10036			KITOV, ZEEV V	
			ART UNIT	PAPER NUMBER
			2836	

DATE MAILED: 05/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

H.A

**Office Action Summary**

Application No.

10/510,099

Applicant(s)

RISKIN, YEFIM

Examiner

Zeev Kitov

Art Unit

2836

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 February 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 15 - 27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 15, 17 - 21 is/are rejected.
- 7) ☒ Claim(s) 16, 22 - 27 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 February 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>02/08/06</u> . | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

Examiner acknowledges a submission of the amendment and arguments filed on February 8, 2006. Claims 1 – 14 are deleted. New Claims 15 – 27 are added. An Office Action follows.

#### ***Objection***

Claims 15 and 22 are objected to due to a missing word in the sentence: “an output from the ac high voltage being via the balancing unit to the electrodes”.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 15 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pitel et al. (US 6,259,591) in view of Gefter et al. (US 6,850,403). Regarding Claim 15, Pitel et al. disclose following element of the Claim: ac high voltage generator (60 and 62 in Fig. 3); one pair of ionizing electrodes provided with different polarity from the AC high-voltage generator (47 and 49 in Fig. 2), and an element for producing (106a and 106b in Fig. 2) a voltage drop connected to each of the cages for generating an external electric field by using the ion current from each electrode, passing through the

Art Unit: 2836

element for producing a voltage drop. It further discloses some of the ions generated from the electrodes escaping outside and moving in direction of other electrode due to the presence of electric field between the electrodes (shown in Fig. 1B and 1C).

However, it does not disclose the electrodes mounted in separate cages and balancing unit. Gefter et al. disclose the electrodes (7 and 8 in Fig. 1) mounted in separate conducting cages (the upper and bottom spaces separated by element 11 in Fig. 1) located adjacent to each other, each of the cages provided with an opening opposite the electrode. It further discloses a balancing unit for balancing ion currents emitted by each of the electrodes (see Fig. 6, col. 5, lines 10 – 26).

Both references have the same problem solving area, namely providing bipolar air ionizers. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the Pitel et al. solution by adding the balancing mechanisms according to Gefter et al., because as Gefter et al. state (col. 3, lines 11 – 56), to maintain electrically neutral flow of ions, separate electrodes in different cages and balancing mechanisms are to be used, while electrically neutral flow of ions is necessary to neutralize the electrostatic charges accumulated on the surface of the ESD sensitive devices.

Regarding Claim 17, Pitel et al. disclose the ion currents from both electrodes passing through capacitive network common for these currents (106a and 106b in Fig. 2).

Regarding Claims 18 and 20, Gefter et al. disclose at least one of the ion currents emitted through the cage is used for providing a feedback signal for comparing

Art Unit: 2836

the feedback signal with a reference signal to control the AC high-voltage generator, for stabilizing ion emission (see Fig. 6, col. 5, lines 10 – 26). A motivation for modification of the primary reference is the same as above.

Regarding Claims 19 and 21, Pitel et al. disclose an indicator for indicating the need for cleaning the electrodes from dust or repair (Clean signal in Fig. 4, col. 10, lines 26 – 29).

#### ***Allowable Subject Matter***

1. Claims 22 - 27 would be allowable if rewritten or amended to overcome the Objection, set forth in this Office action.
2. Claims 16 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Response to Arguments***

1. Applicant in his Arguments attempts to disqualify the Pitel reference on the basis that it does not deal with the use of currents of corona electrodes for stabilization, balancing or for establishing a potential difference between cages (page 8, paragraph 4). Claims 16 and 22 including such limitations of using the currents of corona electrodes for establishing the potential difference between cages are allowed.

Use of the corona currents for other purposes has been disclosed by Geffer et al. Applicant further contends: "in Pitel, the cages are not mentioned". In response to

applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Applicant further contends that in the Pitel reference: "[The operating voltages] of the electronic circuit components mounted inside the generator that are not connected with any structural components outside the generator" (page 8, 2<sup>nd</sup> paragraph).

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (connection of the operating voltages with structural components outside the generator) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

2. As to Gefter et al. reference, Applicant attacks the reference on the basis of lacking some features not recited in the claims, such as use of corona discharge currents to stabilize the outgoing flux but not for taking the ions from the generator proximity to the outer space, which is not recited in the rejected claims. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (connection of the operating voltages with structural components outside the generator) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification,

Art Unit: 2836

limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zeev Kitov whose current telephone number is (571) 272 - 2052. The examiner can normally be reached on 8:00 – 4:30. If attempts to reach examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on (571) 272 – 2800, Ext. 36. The fax phone number for organization where this application or proceedings is assigned is (571) 273-8300 for all communications.

Z.K.  
4/30/2006



BRIAN SIRCUS  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800